



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

June 14, 2019

Gordon Sargent  
Regulatory Manager  
Nufarm Americas, Inc. – AGT Division  
c/o Nufarm Americas, Inc.  
4020 Aerial center Parkway  
Morrisville, NC 27560

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment – Acceptable  
Revision to the Directions for Use Federal Seed Act Phrase wherein the Name of an  
Active Ingredient was Erroneously Omitted  
Product Name: Trunemco Nematode Management  
EPA Registration Number: 55146-162  
Application Date: 06/06/2019  
OPP Decision Number: 551834

Dear Mr. Sargent:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the U.S. Environmental Protection Agency (EPA). If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or

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misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Alex Horansky by phone at (703) 347-0128 or via email at [Horansky.alex@epa.gov](mailto:Horansky.alex@epa.gov).

Sincerely,

A handwritten signature in blue ink that reads "Andrew C. Bryceland". The signature is fluid and cursive, with the first name "Andrew" and last name "Bryceland" clearly legible.

Andrew Bryceland, Team Leader  
Biochemical Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511P)  
Office of Pesticide Programs

Enclosure

# Trunemco™

## Nematode Management

For commercial use

Seed treatment for protection against plant pathogenic nematodes on corn, cotton and soybeans.

**Active Ingredients:**

*Bacillus amyloliquefaciens* strain MBI 600\* ..... 1.00%  
cis-Jasmone (2-Cyclopenten-1-one, 3-methyl-2-(2Z)-2-pentenyl)..... 0.88%

**Other Ingredients:** ..... 98.12%

**Total:** ..... 100.00%

\*Contains a minimum of 2.0 x 10<sup>9</sup> colony forming units per mL

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**KEEP OUT OF REACH OF CHILDREN  
CAUTION/PRECAUCION**



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See inside for complete **First Aid, Precautionary Statements, Directions For Use, Warranty Disclaimer and Limitation of Liability**

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300  
For Medical Emergencies Only, Call Nufarm's Product Safety Information Service (877) 325-1840

Net Contents:

Batch Code: Located on physical container

Nufarm Americas Inc.  
AGT Division  
11901 S. Austin Avenue  
Alsip, IL 60803

<b>First Aid</b>	
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes.</li> <li>• Call a poison control center or doctor for treatment or advice.</li> </ul>
<b>Hotline Number</b>	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact Nufarm's Product Safety Information Service 1-877-325-1840 for emergency medical treatment information 24 hours per day / 7 days a week.	

## Precautionary Statements

### Hazards to Humans and Domestic Animals

**CAUTION.** Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

### Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Waterproof or nitrile gloves
- Shoes plus socks
- Protective eyewear

Mixers/loaders and applicators must wear a NIOSH approved particulate respirator with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH approved powered air purifying respirator with HE filter with NIOSH approval number prefix TC-21C. (Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.)

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### Engineering Controls

When engineering controls that meet OSHA requirements as defined in 29 CFR Part 1910.1000 are used the respirator requirements may be waived or modified as specified in 29 CFR 1910.1000.

## USER SAFETY RECOMMENDATIONS

**Users should:**

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## Environmental Hazards

*{Environmental hazards statements for the following container sizes less than 5 gal}*

For terrestrial uses: **DO NOT** apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate

*{Environmental hazards statements for the following for containers equal to or greater than 5 gallons}*

**DO NOT** discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. **DO NOT** discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

## Product Information

**Trunemco™ Nematode Management** is a combination of the microorganism *Bacillus amyloliquefaciens* strain MBI 600 and the biochemical cis-Jasmone (2-cyclopenten-1-one, 3-methyl-2-(2Z)-2-pentenyl-). *Bacillus amyloliquefaciens* strain MBI 600 rapidly colonizes root systems during crucial, early phases of plant development to establish a vigorous root system, often resulting in more uniform plant growth and greater yields. The biochemical cis-Jasmone primes plant's defense systems, activating genes that focus the plant's physiology on defense against plant parasitic nematodes.

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## Directions For Use

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It is a violation of federal law to use this product in a manner inconsistent with its labeling. **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

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## Application Instructions

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**Trunemco** is only for use in commercial seed treatment facilities on corn, cotton and soybean seeds. Not for use in hopper box, planter box, slurry box, or other on-farm seed treatment applications.

**DO NOT** use treated seed for food or feed purposes or process for oil.

The Federal Seed Act requires that bags containing seed treated with this product shall be labeled with the following information: "This seed has been treated with *Bacillus amyloliquefaciens* strain MBI 600 and cis-Jasmone." **DO NOT** use for food, feed or oil purposes. Excess treated seed may be used for ethanol production only if by-products are not used for livestock feed and no measurable residues of pesticide remain in ethanol by-products that are used in agronomic practice.

The maximum application rates are:

Corn, all types	0.31 fl oz per 100 lbs of seed
Cotton	0.31 fl oz per 100 lbs of seed
Soybean	0.31 fl oz per 100 lbs of seed

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## Tank Mixing Information

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### Tank Mix Partners

If rhizobial inoculants are to be used in the tank mix with other seed treatments (fungicides, insecticides, nematicides, and fertilizers), make sure that they are compatible (not harmful) to the *Rhizobia*. Likewise, use only cool, chlorine-free water in the tank mix. If one or more treatments are not compatible (harmful), mix those products in, and apply them from, a separate mix tank.

To mix, first add the other seed treatment product(s) and/or the rhizobial inoculant product(s) to the mix tank with approximately ½ of the required water. Slowly add **Trunemco** to the slurry until a uniform suspension is obtained. Add the remainder of the water while maintaining constant agitation. **DO NOT** store mixed slurries for longer than 72 hours.

## Compatibility Test for Tank Mix Components

When tank mixing **Trunemco**, always test compatibility before use by performing a jar test as follows:

1. Add all intended seed treatment products and the appropriate amount of water in a clear glass jar.
2. Mix well and allow to sit for one hour.
3. Remix and observe for physical incompatibility.

Also test with the seed to ensure the combination of tank mix products does not have detrimental effects on the seed.

## Mixing Order

Apply **Trunemco** as a water-based slurry alone or with other seed treatment products (fungicides, insecticides, nematicides, fertilizers, and rhizobial inoculants). **DO NOT** mix **Trunemco** with any copper-based products. Shake well before use.

1. **Water** (if required) - Add 3/4 of the required volume of water to the mix tank and turn on agitation.
2. **Agitation** - Mechanical agitation is required for proper mixing of **Trunemco**.
3. **Dye or colorant**
4. **Wettable powders**
5. **Soluble powders**
6. **Flowable formulations** (such as **Trunemco**)
7. **Emulsifiable concentrates**
8. **Water** (if required) - Remaining 1/4 of required water volume is added last and can be used as rinsate for the chemical container or to adjust the total slurry to compensate for water displacement by powdered products.

Maintain agitation until the entire slurry mixture has been used.

Ensure seed is dry before bagging.

Some ingredients in **Trunemco** may not completely solubilize; therefore, it is important to maintain a uniform suspension by continuously agitating the solution throughout the application process. **DO NOT** exceed label application dosage rates.

Because smaller seed has a greater surface area to volume ratio than larger seed, the average size of the seed being treated influences the application rate. For each crop listed in the **Crop Specific Directions** table, apply **Trunemco** at rates from the higher end of the specified application rate range when treating smaller seed. Additionally, use the higher end of the specified application range when treated seed is to be planted in fields that historically experience severe disease pressure.

## Crop Specific Directions

Crop	Target Nematode Pests	Trunemco™ Nematode Management Use Rate per Application
Corn, all types	Soil nematodes, such as Dagger nematode Lance nematode Needle nematode Pin nematode Ring nematode Root knot nematode Root lesion nematode Spiral nematode Sting nematode Stubby root nematode Stunt nematode	4-20 mL per 100 kg of seed 0.06-0.31 fl oz per 100 lbs of seed 0.03 – 0.15 fl oz per 80 k seeds 0.012 – 0.059 mg per seed
Cotton	Soil nematodes, such as Columbia lance nematode Reniform nematode Root knot nematode	4-20 mL per 100 kg of seed 0.06-0.31 fl oz per 100 lbs of seed 0.03 – 0.15 fl oz per 230 k seeds 0.004 – 0.021 mg per seed
Soybean	Soil nematodes, such as Reniform nematode Root knot nematode Soybean cyst nematode	4-20 mL per 100 kg of seed 0.06-0.31 fl oz per 100 lbs of seed 0.03 – 0.15 fl oz per 140 k seeds 0.007 – 0.034 mg per seed

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage or disposal.

### Pesticide Storage

Ensure container closures are tight. Store in a cool, dry place.

### Pesticide Disposal

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

### Container Handling *{For containers with capacities less than or equal to 5 gallons}*

**Nonrefillable container. DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill or by incineration. **DO NOT** burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

*{For containers with capacities more than 5 gallons}* **Nonrefillable container. DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. Alternatively, puncture and dispose of in a sanitary landfill or by incineration. **DO NOT** burn, unless allowed by state and local ordinances. If burned, stay out of smoke.

*{For bulk/mini-bulk containers}*

**Refillable Container:** Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the refiller. **Triple rinse as follows:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure 2 more times. When

container is empty, replace the cap and seal all openings that opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with pesticide product. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

### **WARRANTY DISCLAIMER**

The directions for use of this product must be followed carefully. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE.** UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

### **LIMITATION OF LIABILITY**

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BYWAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF ANY, OR FOR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR ARISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

**If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded**

*Trunemco is a trademark of Nufarm Americas Inc.*

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